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THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

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Sociologists are fond of looking at social and cultural change in the abstract, as an alteration in the patterns of social structure and social relationships within a society over time. Seldom do they look at the impact of macro level trends upon individuals and rarely do they concern themselves with a low-incidence population such as the deaf community. This study seeks to help alter that pattern by examining the effects of changing technology upon a small group of older, deaf people who have been in the work force for 20 years or more.

Statement of the Problem

One of the most fundamental changes presently being observed within the United States is the movement away from an industrialized society to a post-industrial society. With this, a shift in occupational structure can be expected. As larger numbers of workers are employed in tertiary industries providing services to other members of society, fewer workers will be needed to extract raw materials or to manufacture goods. As the trend continues it can be expected that traditional methods of work will become outdated as automation spreads and workers left in primary or secondary industries will tend to be technicians rather than laborers (Bell, 1973).

Recent government figures support these expectations. The Federal Bureau of Labor Statistics projections of industry output and employment through 1995 indicate modest gain in manufacturing but productivity improvement and technological changes are expected to limit job expansion. Most new job growth is projected in service production industries such as transportation, communications, public utilities, finance, insurance, real estate, and government. Service jobs, for example, are projected to account for almost 75% of all new jobs through 1995. Industries such as medical care, business services, pro

fessional services, hotel, personal service, and nonprofit organizations are projected to account for one out of every three jobs as opposed to one out of six jobs for the manufacturing industries. Furthermore, new labor saving technologies are projected to cause shifts among industries, with many old-line factory jobs giving way to new occupations. Machinery will include many electronic components in the near future, telecommunication products and applications will continue to advance, and plastics are expected to become even more commonplace and to be used in a multitude of applications. The result is that employment in high technology industries is projected to increase faster than total employment between 1986 and 1995, but the contribution of high-tech industries to total job growth will probably be relatively small (Parsonick, 1983).

This trend is not favorable for older workers in general and older, deaf workers in particular. Deaf people have not traditionally been trained for technically oriented jobs or high growth service jobs (Stuckless and Boros, 1982). A recent review of the literature on the socioeconomic status of deaf people indicates that deaf workers are over-concentrated in manufacturing industries and under-represented in the professions and in occupations emphasizing person to person communications such as management, sales, and service occupations where much of the growth in the U.S. economy is expected to come (Christiansen, 1982).

The establishment of the National Technical Institute for the Deaf (NTID) and the expansion of other post-secondary programs and support services for hearing impaired students should help to change this situation in the long run, but what kinds of changes will occur for the older deaf worker (age 39-65) in the short run? These people are by and large unprepared to compete in the current and projected job market and there is

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

a strong possibility that those who first entered the job market between 1953 and 1973 may lack the basic requisite skills that would enable them to enter or gain from traditional retraining programs (Corbett, 1983). This group of people, and the effects of the macro-level employment trends on their lives at work are the foci of this study. We would like to know:

1. How do these individuals perceive technology affecting their positions on the job (directly or indirectly)?
2. Have these individuals found methods that they feel are effective ways to cope with changes due to technology?
3. What kinds of aspirations and expectations do these people have for the future as related to employment?

But most importantly, we are interested in learning about the impact of technology on the lives of older deaf workers from their perspective and in their words.

Design and Methodology

Data for this study were generated through in-depth interviews with 13 men and 4 women, ages 39 to 65 years. Subjects were selected by referral from local agencies serving the deaf and other members of the deaf community. Sixteen of these people were currently married and one widowed. Two individuals had less than a high school education and six had attained high school diplomas. Three subjects received additional vocational training, one had some college education and five had college degrees. Their occupations included: printing, clerical work, machine operations, teaching, technical writing and janitorial work. All the subjects had 20 years or more work experience.

The tape recorded interviews were semi-structured in that similar topics were covered with each respondent. Questions were open-ended and the respondents were encouraged to elaborate on their answers. Ordering and phrasing of the topics varied in response to individual interview experiences. However, the focus of each interview remained on the respondents' perspectives concerning their work experiences and the impact of technology on them as members of the work force.

Upon finishing data collection, the transcripts were coded according to the descriptive and theoretical categories that emerged in the course of interviews and research team discussions. The

coding categories were then reviewed with the original organizing questions of the study in mind. Findings pertinent to the core questions are presented in the following section.

Findings

QUESTION 1:

How does the individual perceive technology affecting his or her position on the job (directly or indirectly)?

Before asking respondents to discuss the impact of technology, we asked them to define technology. Three patterns emerged from analysis of subjects' definitions. First, subjects found technology difficult to define. They often said they weren't sure what the word meant, and sometimes remained uncertain even after we offered examples of what technology might be. Second, when subjects did offer a definition of technology, that definition usually involved the concept of change – not simply tools of the culture and how to use them. The most common definition of technology involved new ways of doing things. From the perspective of the subjects in this study, technology usually meant change, for better or worse, as illustrated by the following quotes:

Interviewer (I): Technology . . . what does it mean to you when you see that word?

Subject (S): Advancement in the work force.

I: Have you seen technology in (name of company) in your 12 years there?

S: We're making changes right now in the computer system. Whether that will involve me as an individual, I don't know. They usually push the deaf people aside, especially in my department. I don't want to waste the red tape.

S: . . . Everything will change for future . . . there will be new things. I see it changing a lot around me right now . . . computers save a lot of time, and robots, too.

S: I would say that technology is anything new that would benefit the human race.

Third, people tended to define technology in terms of their own experiences. For example, a technical writer defined technology as "new words," while a tool and die maker described it as "the discovery of new methods of machining." We then asked the subjects to tell us about the impact of technology on their work.

Subjects told us that in some instances technology has had a positive effect on them as workers, and on the work place in general. For

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

example, one person noted that technological advances have created new jobs which do not require communication. Several people said that advances in technology have enabled people to do more work more efficiently, as illustrated in the following quotations:

- S: We have more and more units that are coming out digital. Before we used to use needles with gauges and instruments, but now more and more digital instruments. They are more efficient, they don't break down as much, and are more accurate readings. They don't tend to float up and down like other instruments.
- S: You know, before I had a TTY, well I had a photography business for ten years. I didn't have a good business because people couldn't contact me. Most of the time they'd contact me by post card and visit me, made an appointment. Sometimes I'd have to go to peoples' houses to get customers. Now, the TTY's changed all that. They just call me. And I have an answer service machine, too. So I never miss a customer. Now my business is much better than it ever was before.
- S: I was thinking that the tool and die machines use electronics; it helps the deaf a lot. Before, they were using hand-manual skills to do grinding and drilling. Now the new technology is on computers and I think it will help deaf people. The tool and die industry is a good area too.

However, there were many more comments on what subjects perceived to be the negative impact of technology on the work place. In general, there was a feeling among subjects that technology and its emphasis on change has brought about a period of insecurity for the older deaf worker. Many subjects spoke fondly of the past, which they remembered as a time of stability and security, when the person who found a job and worked hard at it would be employed for a long time. They saw advances in technology as changing all that. As one person put it, "there are no guarantees any more."

Other comments about the negative impact of technology on the work place focused on specific aspects of the job. For example, several people noted that some kinds of technology require increased use of telephones or other listening devices, which makes things harder on the deaf employee:

- S: . . . Sometimes I'm looking at the story and there's long drawn out words and I don't have very good English but most editors all of them are hearing, the deaf none, because can't use telephone and typing. You have to take the telephone call and type into the computer and they get their stories from the satellite and you catch it through the telephone. Sometimes hearing go home, take their job; they see something so they call people on it or call the editor and they see a mistake so they explain it and make some changes, but it's really a big problem for the deaf.
- S: . . . They didn't hire deaf anymore. I think it is because of the telephone . . . During those years when I would find something that was a problem with the paperwork, I used to be able to walk up to the editors, talk with them, show them, tell them the problem and they would solve it. In the last five years, they don't want any workers going up and seeing them personally. You have to use the telephone. So deaf cannot use the telephone. If they would bother another worker, (ask) "Would you please go call for me," it is bothering another worker. I think that is really the problem in hiring the deaf now.

In some industries, such as printing, technological advances have displaced both deaf and hearing workers:

- S: The technology, they're installing it all over the place and cutting out the workers and throwing them out the door. Some of them retired, some of them have gone on to other jobs, some of them have transferred to the mailroom. All they do is pick up mail and move it from one place to another. I wouldn't want that. In the beginning, there were 350 printers, and now left 45.

At best, these advances require the employee to learn new ways of doing things. Our subjects felt that learning the new technology was a big adjustment, particularly because training opportunities for deaf people are limited. Two men complained that traditionally male jobs are being replaced by women's jobs, and that the new technology work was "soft . . . like women's hands." Several people said that new technologies require team work and meetings, both of which present special communication difficulties for the deaf employee. Finally, a number of subjects noted

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

that much of the new technology, and especially computers, was boring, tedious work, as compared with the variety and challenge of the older methods:

- S: . . . I liked working body fenders because it was good work. Fifty percent commission, half and half. . . A lot of learning. I was never bored. I had a car would come in, I'd fix it up, take off the doors . . . I never got bored. The automobiles no more.
- I: I didn't understand your point about the automobiles no more.
- S: Automatic. Everything's automatic now, so no more body fenders. You don't take off the pieces of the car anymore.
- S: I am a low printer. I can't copy and learn the printing, the advanced work. I don't know how to do that. I can't follow the priorities of the company. If I want to learn a new technology, they tell me I can't. (They tell me) "That's not our first priority. Look at the list. If you can learn this priority, then you can transfer to a new job." But so far, I am waiting for CRT. Nothing. CRT and paste up. Those are my two choices because the company wants to cut laborers, the employees . . . Cut the number because they're paying them a lot of money, so I've been working and sometimes I just sit on my elbow and do crossword puzzles, jumble puzzles.

In short, keeping up with new technology presents special problems for the older deaf worker, who has worked for most of his or her life with the philosophy that if you find a job and work hard at it, you're safe. The difficulties encountered by subjects in learning the new technologies and their resistance to change compound the problem.

QUESTION 2:

Has the individual found any methods he or she feels are effective ways to cope with changes due to technology?

As noted in the previous section, subjects defined technology in a variety of ways, all of which involve "change." Their comments about coping with changes due to technology were more coping with change, and about surviving and succeeding in the work place. The comments fell into four broad categories: education, formal accommodations, informal accommodations, and "the right attitude."

Education

Every subject said that education was an important means of keeping up with change in the work place. Usually this meant one-to-one on the job training, including demonstrations and observing. People found these approaches to learning a task to be more effective and enjoyable than the formal or traditional kinds of classroom instruction which they had experienced in high school or college.

The on-the-job teacher was usually a foreman or supervisor, sometimes an expert or master craftsman, a co-worker or a person brought in to teach workers a particular procedure or task. It did not matter if the teacher was hearing or deaf (and in all but one case, the teacher was hearing) since they could rely on demonstration, writing, and the kind of in-depth learning experience that comes with one-to-one instruction, as illustrated in the following quotations:

- S: The glasscutting foreman worked right next to me. So if I needed something I could always go and easily ask him. Always stop and talk and tell me what to do, what is this, what is that, where things are, stuff like that.
- S: Nobody in the whole company had any experience on that machine or knew how to operate it. So a woman came over and show me just how to operate this machine . . . we wrote back and forth. She would write a few things and then tell me what to do, and she would talk some and I would try to lip read her and do some writing, so back and forth, we were able to communicate.

The respondents often described one-to-one learning experiences as a function of a special relationship with one person, who could be described as a "mentor." Sometimes the mentor was a school teacher or family member, such as brother, grandfather or father. When the mentor relationship occurred on the job, it usually involved a master craftsman or supervisor in a small shop environment. The mentor relationship is intimate and requires the time and pace for intensive training. Our subjects often credited this relationship with helping them develop the basic skills and motivation upon which later success in their work was built. This one-to-one learning was a vital means of adapting to change.

Formal Accommodations

Subjects described steps which employers can

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

take to assist and support the deaf employee on the job. For example, adjusting to new technologies often requires a team approach and additional meetings. Occasionally, employers would provide an interpreter, but usually this was not done. Two subjects told stories of how they had finally become so frustrated that they refused to attend any more meetings until an interpreter was provided. In both cases, the employer provided an interpreter. However, as illustrated by the following quotation from one story, this victory was sometimes won only after years of frustration:

I: Do you have meetings in your department?

S: Yes.

I: How do you know what's going on?

S: Believe it or not, I have been working there 12 years and last month was the first time I had an interpreter.

I: Why?

S: . . . Every time I would go to these meetings, I would sit there and would try to catch on whatever I could and then, after a while, everybody started to talk at once. And then I just sit there like a fool. People laugh and they joke and I sit there with a smile on my face and fire in my chest. So finally, I decided the only way I can handle this is get up and walk out. And that's exactly what I did. And the first time that I walked out, I walked out on the department head. I was nervous. And the next day, I told him it was nothing personal, it was just the fact that the meeting went on and on and I understood absolutely nothing. And I just got too frustrated and walked out. (He said) "No problem." (So) more meetings, more meetings, more meetings. I didn't have the nerve to walk out on every one but the one we had last month was with this new engineer . . . and I was sitting there getting more frustrated and a half hour went by and I just couldn't understand anything and so I said out loud, "I'm going." And he flagged me down and gestured, "You stay here." And I gestured back "Uh-uh," and I got up and waved goodbye as I walked out. While I was out, he said, "What can I do about this?" and my co-workers said, "Get her an interpreter." And he said, "Can I do that?" And they said, "Of course you can." He said, "Where do I go? How do I do that?" And they said, "Go to IR, Industrial Relations." Half an hour later, he came back with the name of the interpreter, and he said,

"At the next meeting we're gonna call her."

So we've had two meetings, and I've had an interpreter for each one.

A second accommodation involves the use of the telephone, or other audio telecommunications devices. Subjects described several instances in which the employer had successfully accommodated the deaf employee in this area. In the first case, the employer simply rewrote the job description and assigned the telephone responsibilities to another employee. This accommodation was not yet planned, yet it worked out well, as seen in the following story.

S: The girl was sick with pneumonia . . . She was out for ten weeks. So the boss asked me to take her job. It was a lot of responsibility. There were telephone requirements . . . but they didn't have time to find anyone else, so they taught me her job and they gave the telephone responsibilities to someone else. Ever since that, I've gotten involved in it and I like it. My boss liked the way I do it too, because I'm really neat, I'm very organized. The other girl, she wasn't very organized. So they asked me if I would do that job permanently. So I didn't know what to do. "What are you gonna do about the other girl?" I asked. Well, when she came back, they asked her if she would be willing to transfer to another department. She said she didn't care. So they transferred her and I took her job as the bond controller and I have been doing that for thirteen years.

In the second case, the employer provided a TDD to the deaf employee and to those departments that he contacted on a routine basis.

Retraining is a third type of formal accommodation which employers can provide. One subject received on the job retraining, abandoning the printing training he had in order to learn a new clerical skill that was in demand. Two other subjects were sent by their companies to two-year colleges to obtain degrees pertinent to their job responsibilities. Unfortunately, while our subjects did mention this area frequently, their stories were mostly about how they were turned down for training programs, even when their hearing peers were allowed to participate. Sometimes the problems were due to a lack of interpreter services at the event. In other cases, subjects felt they were discouraged from participating because they were deaf and their employer did not feel confident that they would provide a good

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

return on the investment.

Informal Accommodation

Subjects were resourceful in making individual and informal accommodations in the work place. Self-advocacy, networking, and teaching co-workers about deafness were especially important.

Sometimes an individual stimulated a formal accommodation on the part of the employer through self-advocacy, as in the case of the woman who refused to attend department meetings unless an interpreter was provided. Others told stories of how they had gone to their supervisor to request that they be allowed to participate in a training event, and as a result had attended the event.

By networking with co-workers, subjects obtained information which was otherwise inaccessible. Several relied on one or two hearing friends who would summarize meetings for them. Another relied on a co-worker to sign for her at meetings. The deaf workers usually relied on one or more co-workers to make telephone calls for them. While it might not solve all the deaf worker's problems, networking was helpful in a variety of situations, as illustrated in the following quotation:

- I: At the company, were they enthusiastic about the deaf? Did they provide interpreters for the big department meetings and so on?
- S: No, they did not. But one or two times they did, they got me an interpreter. Once in a while a daughter of a deaf parent who worked there . . . they would call her. They didn't think (to get an interpreter), you have to ask. Sometimes they don't think it is necessary to have an interpreter for the deaf. The girls would tell me what was going on, but not all. You never get the whole picture.
- I: So some of your friends at work would tell you what was happening at these meetings?
- S: They had very good feelings about deaf people. They would write down notes about the meeting, so I would know what was going on. You have to have a few good ones to help you if you are on the job.
- I: How do they find those good ones?
- S: They would come to me, talk to me, let me know what was going on. (They would say to me) . . . "don't do that, the boss doesn't like that." Warn me. It was a big help to me.

Just a few (people were like that) mind you.

Maintaining a good working relationship with the boss or supervisor is a special networking skill which subjects frequently mention. They described this as "staying on the good side . . . of the boss" or "making the supervisor happy." One person stressed that supervisors like to have things done a particular way, and said that it was important to learn how to do things the way the supervisor wanted even if it was different from the way one had learned it in high school or college. Another said that many deaf were afraid to communicate with the supervisor, and that they should not be so hesitant to communicate. Several people told us their supervisor was the person who taught them their job. Others noted that bosses can help you to get ahead if you're on their good side, i.e., tell you about transfers, help get you promoted, send you to training events and night school, and so forth.

Deaf employees also teach their employers, supervisors, and co-workers. Sometimes this process is largely unconscious and subtle, as when the presence of a deaf employee over time increases the awareness of co-workers about deafness. For example, in the case of the deaf woman who left the meeting, her co-workers were aware of her frustration and reason for leaving and were informed enough to tell the engineer to request an interpreter. In other cases the process is direct and explicit. Subjects told us that they routinely needed to teach supervisors and co-workers about important considerations for communication, including speaking slowly and clearly, facing the deaf person while speaking, and being willing to repeat or write messages as needed. In several cases, the deaf employee taught interested co-workers some sign language.

The "Right Attitude"

Subjects told us that "attitude" plays a key role in their survival and/or success at work. Every strategy that subjects mentioned as being helpful to them in coping with change in the work place depends upon whether the employer, supervisors and co-workers, and deaf employee have the "right attitude." In general, the "right attitude" involves a sensitivity towards and desire to get along with the other person. In the case of the employer, having the "right attitude" means being willing to take the necessary steps to accommodate the deaf employee on the job, such as hiring an interpreter for meetings, providing TDDs,

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

facilitating the deaf employee's upward mobility, and encouraging hearing employees to learn more about deafness.

Supervisors and co-workers have the "right attitude" when they demonstrate a willingness to communicate with the deaf employee, have a basic understanding of deafness and the problems faced by deaf employees, and support the employee's career development within the company. For example, almost every subject said that successful communication depended to a large degree on the attitude of the individuals involved, their willingness to repeat or talk slowly, interest in and concern for the problems of deafness, and their patience. As noted earlier in the story of the woman whose hearing co-workers alerted her to the boss's likes and dislikes, there are times when a sensitive and supportive co-worker can make a big difference to the deaf employee.

On the other hand, failure on the part of the co-workers to understand deafness and the communication problems which the deaf worker must face on the job can render the work environment intolerable, as illustrated by the following story:

S: I started looking again for another job. And I looked and looked. I finally found one as an electrician. Oh, the people – they were country people, and it was really hard for me to get along with them. Wow! They were nice people, but obviously they were not very rapport with me. It was a good experience for me, but it was a tough job. It was like an invisible wall between me and them. They kept trying to talk louder and louder, and I said "it doesn't really matter if you talk louder." And they got very nervous, and I got nervous, and I tried to explain about deafness, and they didn't understand. And it was two weeks, and I couldn't stand it any more, so I left.

A supervisor who has the "right attitude" can be instrumental in the success of the deaf employee, as illustrated in the following quotation:

S: For the first 14 years, my supervisor taught me how to work – and he had a deaf grandmother, so he knew fingerspelling and sign language and he was really supportive of the deaf person and he fought for me and he thought that I could do much better than what I was doing on the job. He often fought for me and he told his boss that I could do these things. But the superior boss said,

"Well, she's deaf, she's a girl," so it was more difficult. But my first supervisor really understood the deaf person, how I felt. He understood the deaf can move up, but other bosses seemed not to understand deaf people and our needs and how deaf people feel . . . (My first supervisor) . . . sent me to Advanced Technical Institute . . . for technical writing and editorial class. It was really a seminar. A whole week long and I loved it. The people there were fantastic. I got a certificate.

In short, the attitude of co-workers and supervisors is central to the success of the deaf employee. One subject summed it up as follows:

S: The hearing world and the deaf world, they're really different. If the hearing are interested in the deaf world, everything is fine, but if they're not interested, there's a lot of problems. It really depends on what the hearing person wants or is interested in. If they're interested in the deaf, everything is fine.

Finally, the deaf employee must have the "right attitude." This includes a willingness on the part of the deaf employee to communicate, work with, and if necessary educate hearing co-workers and supervisors. Sometimes the "right attitude" means overcoming feelings of anxiety or insecurity, as in the following quotation:

I: If you saw young deaf people come into (name of company) and you had an opportunity to advise them about how to succeed what would you tell them?

S: Don't be afraid to communicate. Get it down in writing. Make sure you understand. A lot of people are afraid to talk to the boss, really afraid. They're afraid to expose that maybe they're dumb. And they shouldn't do that.

And sometimes having the "right attitude" means taking responsibility for bridging the gap which often exists between the deaf employee and his or her hearing co-workers:

S: Most (hearing) people are afraid of deaf people, (and) most deaf people are afraid of the hearing. They shouldn't be, they should face the hearing people. Whether or not you are here (on the same job) means nothing. You need to show by your own example. I have noticed myself that many deaf people hang around together in their little cliques. That's not good. That is bad. You have to be

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

open to hearing people, mix with them. That's the only way you are gonna learn to face hearing people. You know, it's just like being in a foreign country, you have to mix, that's it . . . Many deaf are always being misunderstood. It's a terrible problem . . . If . . . deaf people stay isolated, the hearing people look down on them and say "ah, yeah, it just a deaf person." They won't give them promotions, and that is going to hurt deaf people in the future. It's important for deaf people to open doors. Then maybe hearing people will realize that they are worthy of promotions on the job.

Most of the time, however, subjects described the "right attitude" as a willingness to accept perceived injustice, discrimination and insensitivity on the part of the hearing supervisor and co-workers, as illustrated by the following selections:

- S: . . . you have to know how to leave them (some hearing people) alone. If they talk, you talk back . . . Some hearing have a bad attitude. Many deaf do not try to tolerate that, they try to make it worse . . . You have to understand and just leave those hearing people alone. Try to cooperate . . . (later in the same interview) . . . One thing that you have to know is how to get along with people to succeed on a job. Some deaf don't see their behavior. They imagine that they (hearing people) are talking against them and they make it worse . . . and they lose their job. You have to know how to get along. That is the one important thing. I don't know how I was taught that way. Maybe I just came up with it myself, but I just watch. I watched my father, I had deaf parents. My father told me many, many times "If you work with hearing people and they are not nice to you, ignore them, leave them alone. You will keep your job." That is what my father told me. I think he taught me that. I told my children the same thing.
- S: If they (deaf employee) can tell that they are being discriminated against . . . In other words, if there was a promotion within the department, and they felt that they deserved it and someone else with lesser skills had gotten the job, they should look at it in a positive way rather than a negative way because they could lose their job . . . because of . . . negative attitude. Having a negative

attitude . . . it doesn't stay at the same level, it grows. It grows to a point where you become an undesirable employee.

- I: Can you give me an example of a negative attitude?
- S: Well, I've had that experience myself. I learned about it myself. I remembered there was a chance to become a foreman and I had more seniority than five or six tool makers in that tool room. I had the experience and I knew the job, and I knew the problems . . . and all those things that are needed or required of the foreman. There was a young man who had worked with me for four or five years as an apprentice and he didn't have all the experience, but he got the job as a tool man. I had a very negative feeling about that, and I decided I wasn't going to help him out. If he came to me with a problem I would not help him. I was so upset on that, that I was getting all the hard work, the dirty work. Then, I decided it was something wrong with me, not him . . . I began to realize that it was my way of thinking. Now when I see a problem come up that is not to my liking or against my way of doing things . . . I think twice. I find it is better off that way.

In sum, the subjects felt that attitude played a key role in their ability to cope with changes in the work place. However their descriptions of the "right attitude" ranged from the self confidence required to engage in self-advocacy activities to passive acceptance of perceived injustice and discrimination in order to insure job security. In the final analysis, beyond education, accommodations, and the right attitude, the deaf workers in our study seem to feel dependent upon the acceptance and tolerance of the larger hearing world for the success or failure of these coping strategies.

QUESTION 3.

What kind of aspirations and expectations does the individual have for the future related to employment?

To understand the subjects' perspective on work aspirations it is important to remember that the choices available to today's deaf youth are far more numerous than those available to this older generation. Twenty or more years ago, a young deaf person leaving high school had the choice of going to Gallaudet College (a liberal arts college in Washington, D.C.), to a vocational

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

program such as a linotype school, or directly to work. The concept of career development is recent and was generally foreign in our subjects.

Several of the men in our sample decided early in their lives to become printers because the various deaf schools had training in printing and the field was open and receptive to them:

S: Most deaf, they look around and they think it's good and easy to travel . . . that's why I picked printing. It was easy to get a job and I could travel a lot as a printer.

One man wanted to pursue a medical career and had been accepted into "pre-med" at a major university, only to be discouraged by others on the basis of communication barriers.

The women's choices and opportunities were perhaps even more limited. Generally, they dropped out of the work force to become homemakers and mothers. One woman wanted to become a professional photographer and studied for a degree only to learn that "... hearing people in the field were scared to hire a deaf person."

The frustrations encountered by the deaf people of this generation trying to plan a career is encapsulated in the following quotation:

I: What was wrong with the first accounting job? Didn't you like it?

S: It was simple. I was deaf. I'm just too deaf. I wanted a challenging job and they, at the company, they were very good to me; very honest with me. They explained that if I wanted to continue working at the department, they admitted that probably I would have to stay at one level for the rest of my life and not get promoted because it was too much verbal communication and deafness interfered with meetings and other kinds of work . . . it was too much for me so I didn't want to continue in that job . . . so I quit, and I joined factory work – auto factory work. I enjoyed that.

Given their history, we found that most of the people we spoke with held fairly modest aspirations and expectations for the future. Their comments frequently focused on one of two themes: "hanging on" and "the small shop versus the large shop."

"Hanging On"

The people we interviewed had already weathered many changes in the work place. Over the years, they had developed strategies to cope with

these changes, ranging from self-advocacy to resignation. When these people talked about their employment futures, many said their goal was simply to get through the years remaining before retirement with a minimum of trouble and risk. Some said they were too old to risk their current position for an uncertain future. Some people told us that they did not want to risk losing a good salary and fringe benefits. Others did not want to take on additional responsibilities or to change their schedules in order to move ahead. In short, they resisted change, and felt that the best way to cope with the future was to "hang on," as illustrated below:

I: If it were possible for you to learn a new technique to move up . . .

S: I have learned, but there's limits at the company. What would be good for me to learn? I don't know what it would be. If I learned something new and they offered me a job, I'd have to start all over again. And when you start over again, you start at low money, and look at my age. Why should I do that? So it's not worth it to me. I'm going to stay at that job. I have only 13 more years to go, and time goes fast.

Even when the worker did learn a new job, retraining programs were usually controlled by the company. In these cases, the employee was simply going along rather than initiating change:

S: I worked as a linotype operator altogether for 35 years, but recently the company changed to computerized typesetting. What I knew was being phased out and eliminated, but the company gave me an opportunity to take another open job . . . and I started that, so I have been doing that now in my final years, and I'll do it until I retire. But you see girls are doing that now. Almost all of my co-workers are women.

The union can play an important role in the employment of older deaf workers. Two of the people we interviewed belonged to a union. The union protected them so they were not laid off during times of technical change. However, this also placed them in the position of having to remain with the union, and sometimes in the same work situation, in order to retain the security which the union offered, as seen in the following quotation:

I: What if the company wanted to teach you about computers? Would you be interested?

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

S: The union protects people who work at (name of company). I am union. If I move to another job, they would cut my money because I'd be leaving my union job, and I'd have to disaffiliate from the union. The union will not allow the company to do that, nor will they allow me to do that. I have to stay in this one area that's designated as my union area. And if I moved, I'd lose my union. The name of that is risk. If I don't want my union job and transfer to an outside department, well maybe if I were younger, I'd consider it. But I'm too old now. I won't do it. It's not worth the risk.

This apparent disinterest on the part of some workers may represent feelings that they are not powerful or able to effect changes. Pragmatically, this reflects a sociological truism that if one is unable to see oneself as capable of effecting change, then the situation as it is defined will likely be real in its consequences.

Part of the belief about oneself as being "too old" to change was the feeling that change is the responsibility of the younger generation of deaf workers. Subjects consistently encourage younger workers to learn new technologies and to be willing to adapt to change in the work place. They recognize that younger deaf people have alternatives that did not exist 20 years ago.

Small Shop/Large Shop.

Subjects' comments regarding work, change, and the future are better understood when seen as part of the history of work experiences which they shared, and their perspective on this work history.

The respondents generally started out in a small shop, which they said was a good experience for them. They often spoke of the small shop experience as preparing them to enter the larger shop later on. Transfers from small to large shop were usually made for more money, but subjects often spoke of how they preferred the pace and family environment of the small shop:

I: You were saying before that you think that your experience in the small shop helped you . . .

S: Yes, I think it is because I had plenty of help. They would take the time at the small shop to come over and say "How are you doing? We'll show you how." Whereas in big companies they say, "No, wait a minute," and they won't take the time with you. In a small

shop it is more like a family and a big company is not.

S: . . . Right before I left, change was drastic and there was a big difference in the work environment.

I: In what way?

S: Well, they wanted us to work faster, think faster, be more accurate. Before that the bosses would say take your time, don't hurry. Try to do perfect work. If you make a mistake, correct it, make the work go smooth. When the rules changed though, it was really hard on the people who were always used to going slow to do a perfect job. When you have to work fast, it is hard on them. The younger, new people coming in, they started working real fast and they are better workers than the older ones.

I: Is that change more of a problem for the deaf than the hearing?

S: Oh, yeah.

I: Why?

S: Because they always took their time, they didn't feel like they had to rush. The change to work fast, plus their age—they couldn't do it. But they tried, they tried their best. Oh, it was very hard.

In particular, the respondents remember the small shop as the place where they received their best training, usually with a master craftsman or supervisor:

I: Why did you go to a small shop?

S: The big company, I would have had to concentrate on just one thing and I wanted a small shop so I could learn to be a jack-of-all-trades. I was really lucky when I went to the small shop, I learned a lot from one man. He was a master craftsman from Germany . . . It was a very small shop. There were just six of us . . . After about one year, I was able to run that shop on my own . . . I'm really thankful that I got that job. I was there for three and one half years. The money was small, just a little, and there was no benefits. My daughter . . . was born during that time.

They felt that the opportunity to learn a variety of jobs in the small shop prepared them for the demands of the larger shop. They were valued employees in the large shop because they could be transferred within the factory or troubleshoot different kinds of equipment:

S: . . . in a small shop you can learn a lot; you learn all different kinds of operations, like

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

stripping, photography, paste-up. In small shop, you learn a lot, you get to do a lot. A big place, too many people; you cannot learn because the boss is depending on you to do one job. Small shop, they have to teach you all the operations.

In general, the respondents described their early jobs as being significantly different from their current positions in a variety of ways. These differences can be summarized as follows:

Before	Now
*small shop	*large shop
*no union	*unionized
*variety of tasks	*same work, less variety
*slower pace	*fast pace
*less money, fringe benefits	*more money, fringe benefits
*old methods	*new technology
*limited opportunity	*more opportunity (<i>but often offset with discrimination</i>)
*merit recognition/ incentive	*equal rewards for all
*informal rules	*formal enforcement of rules
*individualized, primary group	*standardized, secondary groups
*opportunity for 1:1 training	*formal training
*learn multiple aspects of job	*do one task repeatedly

The implications of the above comparison will be explored further in the discussion section of the paper.

Discussion

Qualitative research is very often exploratory and inductive rather than deductive or definitive. This is certainly true of the present study. With a non-representative sample of 17 subjects, we do not propose to generalize our findings to the entire population of older deaf workers. However, there are interesting patterns that have emerged from these interviews that relate to some basic theoretical concepts of sociology. In, *Understanding Deafness Through a Sociological Imagination*, Higgins and Nash (1982, p. 2-9) talk about "handicapism" and adaptations that deaf people and the deaf community have used to respond to the stigma or handicapism. In their paper and elsewhere, handicapism has been defined as "... a set of assumptions and practices that promote the differential and unequal treat-

ment of people because of apparent or assumed physical, mental or behavioral differences" (Bogdan and Biklen, 1977, p. 14).

Handicapism was especially evident when our subjects focused on the four strategies for coping with technology in the workplace. The first three strategies address the characteristics of deafness as a physical limitation. Mentoring, one-to-one on the job training and retraining were key educational strategies. Interpreters, TDDs and the elimination of the phone from job responsibilities were prime examples of formal accommodation. Self-advocacy, networking, and teaching others about deafness were the major forms of informal accommodation. In the fourth category, "the right attitude," the subjects describe the prejudice and discrimination connected with deafness as social status. To be forced to depend upon the "good will" of others to accept and accommodate hearing impairment is handicapping far beyond the physical limitations of deafness. And, as our respondents have repeatedly shown, it is more frustrating because it is beyond the individual's sphere of direct control.

Our study has been concerned with changing technology and the older deaf worker. It seems quite clear from the interviews that the growth of technology in American society has had a significant impact upon our small group of workers. To them, technology equals change.

More than one-third of the individuals in this sample have been displaced by the shift in jobs due to labor saving technologies. While the workers recognize that improved technology enables them to work more efficiently, their jobs have become more repetitious and require less skill. In fact, for the men in the study, one of the most troublesome aspects of the shift from manufacturing to service jobs is the elimination of traditional male blue collar jobs such as printing and their replacement by jobs that they perceive to be women's clerical jobs (i.e., pink collar jobs).

Displacement is not the only problem faced by our subjects. Changes in technology have also resulted in increased demands for using the telephone and reduced one-to-one interaction, both of which represent potential hardship for the hearing impaired employee.

Nash and Nash (1981, p. 97-109) devote a chapter of their book, *Deafness in Society*, to "societal change and the deaf community." They start with Toennies' concepts of "gemeinschaft"

THE IMPACT OF CHANGING TECHNOLOGY ON THE EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS

and "gesellschaft." A *gemeinschaft* community is a social situation wherein those involved treat one another as ends rather than means (Hoult, 1972, p. 142). Very often this community is like a primary group, i.e. a small group characterized by members who maintain intimate, cooperative face-to-face relations. The mentoring relationship, informal rules, and one-to-one interaction within the small shop have these characteristics.

The polar opposite of the "gemeinschaft" is the "gesellschaft" which is a social situation wherein those involved treat one another as means rather than ends (Hoult, 1972, p. 144). Very often this is like a secondary group with limited, formal impersonal relationships. A large work organization with standardized expectations for production and formal enforcement of rules has many of these characteristics.

Nash and Nash (1981, p. 98) further noted that Talcott Parsons described the direction of social change from a traditional society to a modern society as movement:

From	To
*ascription	*achievement
*emotional involvement	*emotional neutrality
*collective interest	*self-interest
*diffuse usage of the individual	*specifically focused actions
*universal meaning	*particular meaning

The correspondence between Parsons' description above and our subjects' earlier description of the differences between the small shop and the large shop is startling.

When our respondents refer to technology as social change rather than changes in tools and their use, they seem to be using technology to describe movement, or social change from "gemeinschaft" to "gesellschaft," that is, moving from the traditional community based upon face-to-face interaction and emotional involvement to one with distant community and more emotional neutrality. Unions, standardized work roles, new technology and large shops may offer deaf people new employment opportunities, but they may also be making survival in the work place more complex for deaf workers by diminishing the opportunity for direct face-to-face interaction. As Nash and Nash have suggested, this may be a natural kind of social change and might be expected on the basis of social theory. However, as deaf people manifestly become more like the modern hearing society, the strategies required

for their success at work might also be expected to undergo dramatic latent changes.

The adaptations of deaf people to hearing society described by Higgins and Nash (1982, p. 6-9) have five major forms:

1. Passing – taking on the characteristics and behaviors of hearing people.
2. Retreatism – developing strategies for avoiding contact with hearing society.
3. Membership – attempting to carry out a full range of life activities within the deaf community.
4. Advocating – systematically attacking the components of the larger society which are thought to be responsible for the plight of deaf people.
5. Marginality – constant movement among the other adaptations and development of strategies for dealing with the conflicts that result (See also Nash and Nash, 1981, p. 77-96).

None of these forms seem to accurately describe the adaptive, coping strategies of our group. Clearly, our respondents were not retreating nor were they trying to live out their lives completely within the deaf community nor were they systematically attacking components of the larger society. Our respondents simply saw themselves as ordinary people who were deaf and had tried to adapt themselves as best they could to the frequently unfair requirements of the hearing society with mixed success. Our group is perhaps an example of an older generation of deaf people caught up in transition.

Given this, our respondents see themselves as "realists" in their aspirations and expectations for the future. Most of them have fairly comfortable life styles which they were unwilling to risk even if it means "putting up" with boring jobs and/or frustrating discrimination. Opportunities in the workplace made possible by Section 504 of the Rehabilitation Act of 1974 and P.L. 94-142 are seen as opportunities for the younger generation of deaf people rather than themselves. Programs that aim for this older group are probably well advised to meet their needs for one-to-one interaction and low risk. If there was a noticeable wish for the future, it was for work to become more like the small shop where many of the subjects had started their careers. But this would theoretically be a step back towards a traditional community and will probably remain wishful thinking.

**THE IMPACT OF CHANGING TECHNOLOGY ON THE
EMPLOYMENT OF A GROUP OF OLDER DEAF WORKERS**

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